

What Is Claimed Is:

1. A microprocessor system having a plurality of modules, comprising:

a microprocessor;

at least one storage module for storing at least one of the code and data for the microprocessor, at least one of the at least one storage module being referred to as an exchange-protected module and storing a serial number of this module in a non-changeable manner; and

a control module to receive a data value specified by the at least one serial number and to at least partially block a function of the microprocessor system if the received data value does not match an expected data value encoded in the control module.

2. The microprocessor system of claim 1, wherein the control module differs from the exchange-protected module, and has a serial number and the expected data value is identical to this serial number.

3. The microprocessor system of claim 1, wherein the at least one exchange-protected module is a non-volatile storage module.

4. The microprocessor system of claim 3, wherein the storage module includes a password-protected flash memory.

5. The microprocessor system of claim 1, wherein the at least one exchange-protected module includes a one-chip microcomputer, which includes the microprocessor together with a program memory.

6. The microprocessor system of claim 1, wherein the control module is configured to induce the microprocessor to query the serial number of each exchange-protected module to calculate the specified data value therefrom and to transmit it to the

control module.

7. The microprocessor system of claim 5, wherein information required by the microprocessor to calculate the specified data value is at least partially stored in the program memory.

8. The microprocessor system of claim 7, wherein the information includes program instructions that are to be executed within the framework of a boot procedure.

9. The microprocessor system of claim 1, wherein the control module is configured to also at least partially block the function of the microprocessor system when the specified data value is not received during a predefined time interval.

10. A method for protecting a microprocessor system from the exchange of modules, comprising:

- reading a serial number of at least one exchange-protected module of the microprocessor system;
- determining a data value specified by the at least one serial number;
- transmitting the data value determined in b) to a control module; and
- at least partially blocking the function of the microprocessor system when the control module detects a difference between the transmitted data value and an expected data value encoded in the control module.

11. The method of claim 10, wherein the data value is determined in the determining operation with an algorithm, which has been specified during assembly of the system based on the at least one serial number of the at least one exchange-protected module.

12. The method of claim 11, wherein the algorithm has additionally been specified based on a serial number of the control module so that the data value determined in the

determining operation is the serial number of the control module.

13. The method of claim 11, wherein it is implemented in each case during start-up of the microprocessor system or periodically during operation.

14. The method of claim 10, wherein the determining operation encompasses at least one arithmetical or logical operation and is executed by the microprocessor of the microprocessor system.

15. The method of claim 10, wherein the function of the microprocessor system is at least partially blocked when the specified data value has not been received during a predefined time interval.